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## RECORD OF ORAL HEARING

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* MICHEL STREBELLE and JEAN-PIERRE CATINAT

Appeal No. 2009-008373  
Application No. 10/534,299  
Technology Center 1600

Oral Hearing Held: April 22, 2010

Before ERIC B. GRIMES, JEFFREY N. FREDMAN, and  
STEPHEN WALSH, *Administrative Patent Judges*.

## APPEARANCES:

ON BEHALF OF THE APPELLANT:

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1        The above-entitled matter came on for hearing on Thursday, April 22,  
2 2010, commencing at 2:24 p.m., at the U.S. Patent and Trademark Office,  
3 600 Dulany Street, Alexandria, Virginia, before Paula Lowery, Notary  
4 Public.

5 THE CLERK: Good morning. Calendar Number 72, Appeal No. 2009-  
6 008373, Mr. Treanor.

7 JUDGE GRIMES: Good afternoon, Mr. Treanor.

8 MR. TREANOR: Good afternoon.

9 JUDGE GRIMES: You have 20 minutes to make your arguments, and you  
10 can get started whenever you're ready.

11 MR. TREANOR: Thank you. I understand I'm your last contestant today,  
12 so I'll do my best to be brief and as entertaining as possible.

13 May it please the Board, I just want to talk about two things today. First, the  
14 prior art teaches away from the combination of the two references applied  
15 against the claim, Strebelle and Takehisa; and, second, we've shown  
16 unexpected superior results.

17 So with regard to my first point, there's no doubt that Takehisa purifies allyl  
18 chloride by removing 1,5-hexadiene. However, the article by Sheldon tells  
19 those of ordinary skill in the art not to combine Takehisa with Strebelle.

20 If you look at page 485, bottom right, of the Sheldon article -- the first page  
21 of the Sheldon article, bottom right -- he specifically states that Titanium  
22 (IV) silica gel, which is the catalyst that Takehisa uses in his only example,  
23 is ineffective with aqueous hydrogen peroxide, which is Strebelle's preferred  
24 peroxide.

25 JUDGE FREDMAN: The question that I would have is is this a teaching  
26 away?

1 It seems to me more the question that we have Strebelle, and we'll call him  
2 Takehisa, Strebelle clearly is a similar method. He simply is not using less  
3 than 2,000 ppm of the hexadiene that you're requiring in your claim.  
4 Takehisa does say that purity is important, and he would like to get rid of  
5 impurities. One of the things he wants to get rid of is hexadiene.  
6 So from a *prima facie* case point of view, why wouldn't you simply want to  
7 make it as pure as possible, even in admittedly an entirely different process?  
8 I don't think there's any reasonable dispute that the processes are different.  
9 MR. TREANOR: Right, so I don't think you can ignore that fact, and I don't  
10 think you can then just grab one of Takehisa reactants and say it can be used  
11 anywhere, any time for anything.  
12 JUDGE FREDMAN: We're simply saying that using a similar type reaction  
13 to make a similar type product we would like the reactants to be pure.  
14 MR. TREANOR: I think if that were the rejection I would address it by  
15 pointing out that Takehisa says the hexadiene and allyl chloride is only a  
16 problem when you use his peroxide. You can find that in Paragraph 8 of the  
17 English translation. That's at page 4.  
18 Nobody is talking about there being a problem with the hexadiene when  
19 hydrogen peroxide is used. Strebelle doesn't say it's a problem. Takehisa  
20 doesn't say it's a problem.  
21 Let's jump to the other point, which is my second point today. Nobody  
22 suggests that hexadiene is a problem in terms of killing the catalyst.  
23 We've shown that if you take that hexadiene out of the catalyst, you double  
24 the catalyst life. Nobody talks about that anywhere,  
25 even if we take your theoretical case.  
26 JUDGE FREDMAN: My question is actually it's clear from the Table 1 you

1 have in the specification that there's an extended life of the catalyst with a  
2 high purity of 180 ppm hexadiene relative to the standard purity.

3 Would you argue that commensurate in scope? That's the question I would  
4 have.

5 MR. TREANOR: I think that's a good question. I think it's a fair question.  
6 My first answer is: I don't think we need to get there because I don't think  
7 you can ignore Sheldon. I don't think you get to the *prima facie* case.  
8 The second answer to your direct question is: yes, I think it's supportive of  
9 the invention because it compares the invention to Strebelle.

10 JUDGE FREDMAN: Does Strebelle have that amount? Is that what you're  
11 saying?

12 MR. TREANOR: Strebelle just uses regular old allyl chloride, which I think  
13 the best you can say is what we compared our invention to. Regular,  
14 unpurified allyl chloride.

15 JUDGE FREDMAN: Okay.

16 MR. TREANOR: So based on your questions, I don't know how long I have  
17 to go on here. It seems like you know the case very well.

18 I want to emphasize that Sheldon is very important. It can't be ignored. It  
19 tells those in prior art something very important, that catalyst and peroxide  
20 combinations matter.

21 If you look at the way this art goes, Strebelle and Takehisa used different  
22 peroxides in different catalysts. That's consistent with Sheldon. So Sheldon  
23 shouldn't be ignored.

24 It tells you don't combine Takehisa and Strebelle.

25 JUDGE FREDMAN: Is that really what it says? I mean, Strebelle says you

1 use this TS-1 catalyst and LL chloride and a peroxide compound in the  
2 presence of water, right? Isn't that the combination that Sheldon says doesn't  
3 work?

4 MR. TREANOR: Sheldon says Titanium (IV) with aqueous hydrogen  
5 peroxide doesn't work.

6 JUDGE FREDMAN: Is that the same as this T-S1 catalyst that Strebelle --

7 MR. TREANOR: No.

8 JUDGE GRIMES: T-S1 is a zeolite.

9 MR. TREANOR: T-S1 is what Takehisa actually uses.

10 JUDGE FREDMAN: But it's in Strebelle as well.

11 MR. TREANOR: No.

12 JUDGE FREDMAN: Yes.

13 MR. GRIMES: Strebelle is using T-S1.

14 JUDGE FREDMAN: Column 2, line 14.

15 MR. TREANOR: Column 2, line 14 talks about zeolite catalysts. Sheldon  
16 and Takehisa talk about simple titanium on silicon gel.

17 JUDGE FREDMAN: Strebelle at Column 2, line 14 is using T-S1.

18 MR. TREANOR: That's a zeolite.

19 JUDGE GRIMES: So you're saying it wouldn't be obvious to take the  
20 catalyst and the purified allyl chloride from the Japanese reference and put  
21 them into Strebelle's process.

22 MR. TREANOR: We don't need the catalyst from Takehisa, not that I want  
23 to try to make your example closer to my invention; but we don't need to  
24 take the catalyst out of Takehisa.

25 Strebelle uses the zeolite catalyst. Strebelle uses aqueous hydrogen  
26 peroxide.

1 JUDGE GRIMES: So how does Sheldon teach away from that  
2 combination?

3 MR. TREANOR: Remember, the Examiner has to reach into Takehisa to  
4 find the purified allyl chloride.

5 JUDGE GRIMES: Yes, but he's not taking the catalyst.

6 MR. TREANOR: You can't ignore though what Sheldon tells us. It says  
7 don't reach into Takehisa because the catalyst Takehisa uses won't work with  
8 Sheldon's peroxide.

9 JUDGE FREDMAN: But we're not taking the catalyst from --

10 MR. TREANOR: You can't just reach into Takehisa for one or two things.  
11 You've got to understand Sheldon for what it tells those of ordinary skill in  
12 the art.

13 JUDGE FREDMAN: Can we go back to Strebelle for a second? You were  
14 saying the T-S1 is not a zeolite, but your specification --

15 MR. TREANOR: No, T-S1 is a zeolite.

16 JUDGE FREDMAN: Okay. So Strebelle has a T-S1, there's no question  
17 there, and it is a zeolite.

18 MR. TREANOR: Yes, but Takehisa doesn't have --

19 JUDGE FREDMAN: Right, Takehisa doesn't. You had said Strebelle.

20 MR. TREANOR: I apologize if I confused those.

21 JUDGE GRIMES: So if I understand your argument right, it's that the  
22 Japanese reference says use this purified allyl chloride with this other  
23 catalyst.

24 MR. TREANOR: With a different catalyst.

25 JUDGE FREDMAN: A different catalyst.

1 JUDGE GRIMES: And there wouldn't be a reason to think you would need  
2 that kind of allyl chloride in the process of strip out.

3 MR. TREANOR: Sheldon says don't look to Takehisa to improve Strebelle.

4 JUDGE GRIMES: I understand your argument now, thank you.

5 JUDGE FREDMAN: I'm more focused on the unexpected result.

6 MR. TREANOR: I don't think we need to get there. You know, you  
7 probably saw I got agitated in my Reply Brief.

8 We see this a lot. Some Examiners think if they make a *prima facie* case  
9 there can be no unexpected result. They get this flow naturally or inherent  
10 argument.

11 I think if we try to understand her as saying the results are expected, there's  
12 no basis for that conclusion at all.

13 JUDGE GRIMES: You're talking about the results of the combination,  
14 essentially.

15 MR. TREANOR: Of our invention.

16 JUDGE GRIMES: Right, for her argument I think you'd have to say the  
17 results of if you took the purified allyl chloride and put it into Strebelle, you  
18 would then necessarily expect the extended catalyst life.

19 MR. TREANOR: My argument would be it's unexpected. Her conclusion is  
20 -- I think the best you can do for her is to say she's saying they're expected.  
21 That's wrong.

22 JUDGE GRIMES: In your comparison you've got the standard ALC and the  
23 high purity ALC. Your high purity has 180 ppm.

24 MR. TREANOR: Yes.

25 JUDGE GRIMES: What is 2.7 grams per kilogram in ppm?

1 MR. TREANOR: That's a good question. Off the top of my head, I think  
2 it's 2,700 ppm.

3 JUDGE GRIMES: Okay.

4 MR. TREANOR: I think it's clear you guys know what's going on, and I  
5 don't need to go on too much further, I don't think.

6 Let me just check my notes.

7 JUDGE GRIMES: I think my only remaining concern is with the upper end  
8 of your range. I think Judge Fredman was getting to this with the  
9 commensurate in scope question earlier.

10 If the comparative composition is 2,700 ppm and your claim goes up to  
11 2,000 ppm, but you only have actual results for 180 ppm, how do we know  
12 that that 2,000 ppm is also going to get unexpectedly superior results?

13 MR. TREANOR: I think that based on the record you only have one data  
14 point. I don't think you need unexpected results in this case. I think they've  
15 been shown for at least that data point, and I think on balance the *prima facie*  
16 case is overcome.

17 JUDGE GRIMES: Any more questions?

18 JUDGE FREDMAN: No.

19 JUDGE GRIMES: Do you have anything further?

20 MR. TREANOR: No.

21 JUDGE GRIMES: Thank you.

22 MR. TREANOR: Thank you very much.

23 Whereupon, the proceedings at 2:34 p.m. were concluded.

24